

Methods in Microbiology is the most prestigious series devoted to techniques and methodologies in the field. Established over 40 years ago, *Methods in Microbiology* reviews the methodologies associated with areas of microbiology in which new and developing technologies are having the biggest impact. It also provides the reader with tried and tested, cutting-edge protocols.

The current volume, *The Human Microbiome*, highlights the impact of high-throughput sequencing technologies on our understanding of the human microbiome. Of increasing importance are technological developments that facilitate rapid taxonomic profiling. The volume describes current methodologies for identifying operational taxonomic units (OUT), functional profiling and metabolic pathway reconstruction. The combination of technologies discussed in this volume is already having a profound impact on our understanding of how dysbiosis and age-related changes impacts on health, immunomodulation, cancer and the competitive exclusion of pathogens.

Key Features:

- Clinical microbiology phenotyping
- Antibiotic resistance detection
- 16S rRNA gene surveying
- Operational taxonomic units
- Metagenomic shotgun sequencing
- Rapid taxonomic profiling
- Functional profiling
- Metabolic pathway reconstruction
- Metagenomic data analysis
- Machine learning algorithms
- Sequencing platforms
- Dysbiosis
- Oesophageal microbiome
- Barrier functions patterning and dynamics
- Immunomodulation
- Microbiome and cancer
- Bystander effect
- Metatranscriptomics
- Vaginal microbiome
- Adhesion and competitive exclusion
- Age-related microbiome modulation



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